REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed August 26, 2004. Reconsideration and allowance of the application and pending claims are respectfully requested.

I. Claim Rejections - 35 U.S.C. § 102(b)

Claims 1-3, 10, and 14 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Buzbee, et al. ("Buzbee," U.S. Pat. No. 5,933,622). Applicant respectfully traverses this rejection.

It is axiomatic that "[a]nticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." W. L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983)(emphasis added). Therefore, every claimed feature of the claimed invention must be represented in the applied reference to constitute a proper rejection under 35 U.S.C. § 102(b).

As is noted above, independent claim 1 has been amended and claims 10-14 have been canceled through this Response. In view of those amendments/cancellations, the rejection is believed to be moot. Applicant, however, briefly discusses claim 1 in the following for the Examiner's consideration.

Claim 1 provides as follows (emphasis added):

> 1. A method for executing a program written for an original computer system on a different host computer system, comprising:
>
> fetching original program instructions during execution of the program;

dynamically translating the original program instructions into instructions that can be executed by the host computer system;

dynamically emitting translated program instructions into at least one code cache of a dynamic execution layer interface of a virtual machine; and

dynamically executing the translated instructions from the at least one code cache in lieu of the original program instructions when a semantic function of the original program instructions is requested.

Applicant notes that Buzbee at least does not teach "dynamically emitting translated program instructions into at least one code cache of a dynamic execution layer interface of a virtual machine". For at least this reason, Buzbee does not anticipate Applicant's claims 1-3. Therefore, Applicant respectfully requests that the rejection of these claims be withdrawn.

II. Claim Rejections - 35 U.S.C. § 103(a)

A. Rejection of Claims 4, 8-9, and 11

Claims 4, 8-9, and 11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Buzbee in view of Lethin, et al. ("Lethin," U.S. Pat. No. 6,463,582). Applicant respectfully traverses this rejection.

As has been acknowledged by the Court of Appeals for the Federal Circuit, the U.S. Patent and Trademark Office ("USPTO") has the burden under section 103 to establish a *prima facie* case of obviousness by showing some objective teaching in the prior art or generally available knowledge of one of ordinary skill in the art that would lead that individual to the claimed invention. *See In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). The Manual of Patent Examining Procedure (MPEP) section 2143 discusses the requirements of a *prima facie* case for

obviousness. That section provides as follows:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teaching. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and reasonable expectation of success must be found in the prior art, and not based on applicant's disclosure.

In the present case, neither of the references disclose "dynamically emitting translated program instructions into at least one code cache of a dynamic execution layer interface of a virtual machine", as is provided in claim 1 from which claims 4, 8, and 9 depend. At least for that reason, the rejection fails to satisfy 35 U.S.C. § 103.

As a further matter, Applicant notes that neither reference provides a suggestion or motivation to modify the Buzbee system to include a just-in-time compiler.

In view of the above, it is respectfully submitted that Applicant's claims are patentable over Buzbee and Lethin and that the rejection should be withdrawn.

B. Rejection of Claims 5, 12, and 30

Claims 5, 12, and 30 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Buzbee in view of Challenger, et al. ("Challenger," U.S. Pat. No. 6,256,712). Applicant respectfully traverses this rejection.

Regarding claim 5, Applicant notes that neither of the references disclose "dynamically emitting translated program instructions into at least one code cache of a

dynamic execution layer interface of a virtual machine", as is provided in claim 1 from which claim 5 depends.

As a further matter, Applicant notes that neither reference provides a suggestion or motivation to modify the Buzbee system to include an application programming interface for emitting translated program instructions into a code cache.

Regarding claim 30, Applicant notes that the Office Action has failed to account for Applicant's claimed application program interface which, as is explicitly recited in claim 30, includes "a set of functions available to the translator including: an emit fragment function with which the translator can emit code fragments into code caches of the dynamic execution layer interface, and an execute function with which the translator can request execution of code fragments contained within the at least one code cache". In the rejection, the only discussion of claim 30 is that the claim is rejected "for the same reasons as cited in claim 5". The Office Action is silent as to the limitations of claim 30 in discussing claim 5. For at least this reason, the rejection is improper as to claim 30.

In view of the above, it is respectfully submitted that Applicant's claims are patentable over Buzbee and Challenger and that the rejection should be withdrawn.

C. Rejection of Claims 6-7, 13, and 15

Claims 6-7, 13, and 15 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Buzbee in view of Morley (U.S. Pat. No. 5,751,982). Applicant respectfully traverses this rejection.

Regarding claims 6 and 7, Applicant notes that neither of the references disclose "dynamically emitting translated program instructions into at least one code cache of a

dynamic execution layer interface of a virtual machine", as is provided in claim 1 from which claims 6 and 7 depend.

As a further matter, Applicant notes that neither reference renders obvious "interpreting and executing program instructions that have not be emitted into the at least one code cache". As a first matter, neither reference provides a suggestion or motivation to perform such steps. Moreover, neither Buzbee nor Morely discloses "interpreting" program instructions. As is noted in Applicant's specification, "interpreting" is a term that has an established meaning in the art and, therefore, cannot be ignored when evaluating Applicant's claims in view of the prior art (see, e.g., Applicant's specification, page 5, line 17 to page 6, line 5).

Regarding claim 15, which has been rejected for the "same reasons" as claim 6, Applicant refers back to the discussion provided above in relation to claim 6.

In view of the above, it is respectfully submitted that Applicant's claims are patentable over Buzbee and Morely and that the rejection should be withdrawn.

D. Rejection of Claims 20-29

Claims 20-29 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Buzbee in view of Lethin and further in view of Challenger. Applicant respectfully traverses this rejection.

The Office Action states the following in regard to claims 20-29:

> Claims 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buzbee et al. further in view of Lethin et al. and Chellenger et al..
>
> As per claims 20-29, they recite limitations which have been addressed in claims 4-5, therefore, are rejected for the same reasons as cited in claims 4-5.

Applicant objects to this rejection as being *per se* improper. Applicant refers back to the discussion of MPEP section 2143 reproduced above. At minimum, the rejection should provide an explanation as to how Applicant's claims are rendered obvious by the cited references, as well as why a person having ordinary skill in the art would be motivated to make the proffered combination (i.e., of all three references in this case). No such explanations have been provided.

As a further point, Applicant notes that claims 20-29 contain several limitations that are not provided in claims 4 and 5. Therefore, a statement that claims 20-29 are obvious for the "same reasons" as claims 4 and 5 ignores multiple explicit limitations that must be accounted for in forming a *prima facie* case of obviousness.

In view of the above, Applicant respectfully requests a proper statement of a rejection of claims 20-29, or an indication that those claims are allowed.

E. Other Rejected Claims

Other claims have been rejected, presumably as being obvious under 35 U.S.C. § 103, without an explicit statement of the references under which they are rejected. For instance, claims 16-19 have been rejected "the same reasons as cited in claims 4-6" and claims 31-36 have been rejected for "the same reasons as cited in claims 4-5".

Applicant respectfully objects to these rejections as being *per se* improper under 35 U.S.C. § 103. Regarding the rejection of claims 16-19, Applicant notes that claim 4 is rejected under Buzbee and Lethin, claim 5 is rejected under Buzbee and Challenger, and claim 6 is rejected under Buzbee and Morely. Given this fact, it is unclear which references are being applied against Applicant's claims 16-19. Specifically, is the Examiner stating that claims 16-19 are rejected under Buzbee in view of Lethin,

Challenger, *and* Morely, or other combinations? Applicant is being deprived of a clear statement of a rejection and, therefore, a full opportunity to respond to that rejection.

Similar problems exist for the rejection of claims 31-36. Regarding those claims, claim 4 is rejected under Buzbee and Lethin, while claim 5 is rejected under Buzbee and Challenger.

In view of the above, the rejections are clearly improper and should be reformulated so as to comply with 35 U.S.C. § 103 or be withdrawn.

III. Obviousness-Type Double Patenting Rejections

Claims 1-3, 5-7, 10, 12-15, 17-21, 23, and 30 have been provisionally rejected under the doctrine of obviousness-type double patenting as being unpatentable in view of claims 1, 8-10, 12-16, 18, 20-21, and 28 of U.S. Application No. 09/999,451 ("the '451 application"). Applicant respectfully traverses.

Given that the rejection is only provisional at this stage, Applicant reserves its response to the rejection until such time if/when the provisional status of the rejection is lifted.

IV. Canceled Claims

As identified above, claims 10-14 and 22 have been canceled from the application through this Response without prejudice, waiver, or disclaimer. Applicant reserves the right to present these canceled claims, or variants thereof, in continuing applications to be filed subsequently.

V. New Claims

As identified above, claims 37-40 have been added into the application through this Response. Applicant respectfully submits that these new claims describe an invention novel and unobvious in view of the prior art of record and, therefore, respectfully requests that these claims be held to be allowable.

CONCLUSION

Applicant respectfully submits that Applicant's pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner for Patents, Alexandria, Virginia 22313-1450, on

11-9-04

Mary Meegan
Signature